

Title (en)

Process for preparing Si-H containing chlorosilanes

Title (de)

Verfahren zur Herstellung von SiH-haltigen Organylchlorosilanen

Title (fr)

Procédé de préparation de chlorosilan contenant Si-H

Publication

EP 0776698 A1 19970604 (DE)

Application

EP 96119065 A 19961128

Priority

DE 19544730 A 19951130

Abstract (en)

Preparation of organosilanes of formula (I) and/or (IA) is claimed by reaction of a chlorosilane (II) with a methylhydrogensilane (III) in the presence of a phosphonium catalyst (IV). In the formulae: R = alkyl, aryl, alkaryl or haloalkyl; X = halogen; a, b, y and z = 1 or 2; and c = 2 or 3. Also claimed is a novel catalyst (IV) and its preparation by reacting a phosphonium compound of formula $R^{(1)}mP^{(+)}(R^{(2)}(4-m)SiYpR^{(3)}(3-p)X^{(-)})$ (V) in a solvent with a carrier. In the formulae: $R^{(1)} = 1-20C$ monovalent hydrocarbon or 2 R together form a 4-11C divalent hydrocarbon opt. interrupted by a heteroatom; $R^{(2)} =$ mono- or di-valent 1-20C hydrocarbon; m = 1, 2 or 3 (=3 in compound (V) used in the catalyst preparation); n = 0 or 1, with m = 3 when n = 1; T = an oxygen-bonded carrier; $R^{(3)} = 1-12C$ monovalent hydrocarbon; p = 1, 2 or 3; and Y = a hydrolysable group. $ZRaSiCl_4-a$ (II) + CH_3SiHcX_3-c (III) \rightarrow $ZRaSiHbCl_4-a-b$ (I) + $CH_3SiHc-yX_3+y-c$ (IA) The reaction proceeds under the action of a catalyst given by (IV). ($R^{(1)}mP^{(+)}$ $\rightarrow R^{(2)}(4-m)ASi(OT)pR^{(3)}(3-p)UX^{(-)}$ (IV))

Abstract (de)

Die Erfindung betrifft ein Verfahren zur Herstellung von Organylsilanen, die zumindest einen Si-gebundenen Wasserstoff aufweisen, in der Gegenwart eines Phosphoniumkatalysators, den Phosphoniumkatalysator selbst sowie ein Verfahren zu seiner Herstellung.

IPC 1-7

B01J 31/02; C07F 7/12

IPC 8 full level

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CPC (source: EP US)

B01J 31/0268 (2013.01 - EP US); **B01J 31/0269** (2013.01 - EP US); **B01J 31/0274** (2013.01 - EP US); **B01J 31/0275** (2013.01 - EP US); **C07F 7/123** (2013.01 - EP US); **B01J 21/08** (2013.01 - EP US)

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